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CIA HISTORICAL REVIEW PROGRAM  
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MEMORANDUM FOR: John R. Cambern, US Arms Control  
and Disarmament Agency

SUBJECT : Selected Economic Data on Communist  
Chemical Industries

Attached is our response to your request for information on production, foreign trade and employment in the chemical industries of the Communist countries. Except for sulfur and natural gas, production figures are not available for the chemicals given in your second list.

ATT: As stated.

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Value of Chemical Output in the USSR and Eastern Europe

Differences in the structure and methods of evaluating chemical output in the Communist countries make it difficult, if not impossible, to arrive at precise figures for dollar turnover of the industries concerned. A rough estimate can be made, however, of Communist chemical output relative to that in the US. We estimate that Soviet chemical output accounts for about 60 percent of total chemical output in the USSR and Eastern Europe. It has been claimed in a Soviet publication that chemical output in the USSR in 1969 was 37 percent of that in the US; but we believe the actual figure was nearer 30 percent. The figure in the Soviet press correlates well with the ratio of Soviet-US output of sulfuric acid, a basic chemical that is considered a fairly good barometer of overall chemical activity in many large Free World countries. However, output of sulfuric acid is not considered as reliable an indicator in the case of the USSR, because <sup>of</sup> the relatively greater Soviet lag in production of high-value synthetic materials such as plastics and synthetic fibers. For this reason and also because Soviet methods of evaluating industrial output generally result in figures that overstate such output relative to that in the Free World, the Soviet claim concerning chemical output is believed to be an exaggeration.

Based on the above assumption, we estimate that total chemical output in the USSR and Eastern Europe in 1969 was about one-half of that in the US.

\* Khimicheskaya promyshlennost, #4, 1970.

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The estimate is a tentative one because of limitations in Communist data and because of the generally poorer quality and assortment of chemicals produced in Communist countries relative to those manufactured in the US.

Tables 1-2, attached, cover information on chemical production, foreign trade and employment in the USSR and Eastern Europe, and Tables 4 and 5 include available data on the chemical industry of Communist China. Sources for the production data in Table 1 came largely from the statistical year-books listed in Table 3.

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Table 1

## USSR and East European Production of Selected Chemical Products 1969\*

(thousands of metric tons)

	Bulgaria	Czechoslovakia	East Germany	Hungary	Poland	Romania	USSR
Caustic Soda (100%)	49	177	394	56	311	312	1,668
Hydrochloric acid (100%)	N.A.	50***	75	45	N.A.	30	N.A.
Nitric acid (100%)**	694	690	373	602	1,820	1,030	6,100
Nitrogenous fertilizer	545	299	391	300	938	494	4,177***
Phosphorous fertilizer (100% P <sub>2</sub> O <sub>5</sub> )	140	289	369	170	534	221	2,919****
Soda ash (100%)	265	92***	606	N.A.	628	595	3,289
Sulfur, elemental	9***	N.A.	110	3	1,942	N.A.	1,500***
Sulfuric acid (100%)	498	1,034	1,104	454	1,516	838	10,664
Natural Gas (million cubic meters)	525	950 (est)	200 (est)	3,235	3,760	24,087	181,300

\* Data are unclassified, with the exception of figures on nitric acid. The unclassified production data were obtained or derived chiefly from statistical yearbooks or journals published in the Communist countries.

\*\* Data on production of nitric acid are estimated and classified CONFIDENTIAL except for the figure for Hungary, which is unclassified.

\*\*\* Data are for 1968.

\*\*\*\* Data are for 1968 and include 982,000 tons of P<sub>2</sub>O<sub>5</sub> contained in phosphorite meal.

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Table 2

Soviet and East European Trade in Chemicals, 1968\*

(in thousand US \$)\*\*

<u>Country</u>	<u>Imports</u>	<u>Exports</u>	<u>Source</u>
USSR	858,118	448,490	<u>Vneshnyaya Torgovlya SSR</u> <u>za 1968 God, Moscow, 1969</u>
Bulgaria	154,701	53,247	<u>Statisticheski Izvestiya</u> <u>#6, 1970, p. 42</u>
Czechoslovakia	243,056	130,833	<u>Statisticka Rocenki CSSR,</u> <u>1969, p. 410-411</u>
Hungary***	272,998	156,175	<u>Statistikai Evkonyv 1969,</u> <u>Budapest 1970, p. 283, 285</u>
Poland	244,653	170,196	<u>Rocznik Statystyczny</u> <u>Handlu Zagranicznego 1970,</u> <u>Warsaw, 1970, p. 17,19</u>
Romania	100,867	90,383	<u>Statistical Pocket Book of</u> <u>the Socialist Republic of</u> <u>Romania, 1969, p. 322, 326</u>

\* East Germany does not report comprehensive foreign trade data on chemicals.

\*\* Dollar values are computed on the basis of official commercial exchange rates.

\*\*\* Data for Hungary include basic chemical materials, chemical intermediates and pharmaceutical preparations.

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Table 3

Employment in Communist Chemical Industries, 1968\*

<u>Country</u>	<u>Number of Employees</u>	<u>Source</u>
Bulgaria	47,409	<u>Statisticheski Spravochnik, 1970, p. 67</u>
Czechoslovakia	91,000**	<u>Statisticka Rocenka CSSR, 1969, Prague, 1969, p. 239</u>
Hungary	100,555	<u>Statistisches Taschenbuch, 1970, Berlin: 1970, p. 47</u>
Poland	254,000	<u>Concise Yearbook of Poland, 1970, p. 97</u>
Romania	112,700	<u>Breviarul Statistic al Republicii Socialiste Romania, 1970, p. 324-327</u>
USSR	1,178,000**	<u>Narodnoye Khozyaystvo SSSR v 1968 Godu, p. 205</u>

\* Data represent totals unless otherwise specified. Information on employment within major sectors of the chemical industries is not available.

\*\* Blue collar workers only.

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Table 5

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